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INTRODUCTION

The current issue of Folia Oeconomica presents a wide range of topics in the field of multivariate statistical analysis from parametric and non-parametric methods of statistical inference through methods of classification and finally to innovative applications of the theory of statistics. The scientific problems included in this volume were presented and discussed at the *33rd International Annual Conference on Multivariate Statistical Analysis MSA 2014*, which was organized by the Department of Statistical Methods, University of Lodz, the Polish Statistical Society in Lodz and the Commission for Statistics and Econometrics of the Polish Academy of Sciences, and which was held on 17–19 November, 2014.

The first chapter encompasses the area of the theory of probability and statistical inference. Tadeusz Gerstenkorn pointed out that G. Mühlbach provided some interesting formulas for moments of the Pólya distribution, however, the author did not attempt to evaluate the calculative effectiveness of the given formula for simple moments. Tadeusz Gerstenkorn showed that the formula can be presented in a simpler form, which can be of practical importance. Oleksii Doronin i Rostislav Maiboroda introduced the method of parameter estimation based on the generalized estimation formula with the use of the adaptive procedure. Artur Zaborski discussed a method selected from an array of non-symmetric, multivariate scaling methods viz. the drift vectors method. The final article included in this chapter is written by Piotr Białowolski and presents the construction of the composite indicator for household debt demand.

Chapter two explores applications of statistical methods. Bronisław Ceranka and Małgorzata Graczyk presented a new method of construction of a regular A-optimal chemical balance weighing design. Renata Karkowska presented the *application of GARCH (1.1) model for measuring shock transmission on bond market*. The article investigates identify the volatility of credit spread of bonds in selected European countries during the fiscal crisis in Greece in the years 2010–2013. Magdalena Chmielińska proposed a procedure of determining the constant k of acceptance sampling by set sampling size and producer's risk, in case of distribution of controlled characteristics significantly different from normal

distribution. Paweł Fiedor focused on the issue of evolution of financial networks in time. The conducted analysis was based on the Hirschfeld-Gebelein-Rényi maximum correlation coefficient.

The third chapter presents profiles of outstanding representatives of the Polish statistical thought. The academic curriculum vitae and scientific achievements of Professor Zdzisław Hellwing were presented by Józef Dziechciarz, while Iwona Markowicz recalled memories of the late Professor Mirosława Gazińska. Finally, Czesław Domański presented the profiles of *Władysław Grabski i Oskar Lange* to commemorate their lives and merits on the year of jubilee.

Czesław Domański
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